Colloids and Surfaces A: Physicochemical and Engineering Aspects, 73 (1993) ix–x
Elsevier Science Publishers B.V., Amsterdam

Contents

(Abstracted/indexed in: Chemical Abstracts; Current Contents; Physical, Chemical & Earth Sciences; INSPEC; PASCAL/CNRS)

Vol. 73 (1993)

Special Issue: Colloids in the Aquatic Environment. A collection of papers presented at the International Symposium on Colloids in the Aquatic Environment, organized by the SCI Colloid and Surface Chemistry Group, held at University College London, September 7–9, 1992

Preface vii
Aquatic colloids as chemical reactants: surface structure and reactivity
W. Stumm (Dubendorf, Switzerland) 1
The determination of the molecular mass of humic substances from natural waters by analytical ultracentrifugation
A.E. Wilkinson and N. Hesketh (Manchester, UK), J.J.W. Higgo (Nottingham, UK), E. Tipping (Ambleside, UK) and M.N. Jones (Manchester, UK) 19
Biospecific mechanism of double layer formation and peculiarities of cell electrophoresis
A.S. Dukhin (Kiev, Ukraine) 29
Dynamics of colloid deposition in porous media: modeling the role of retained particles
L. Song and M. Elimelech (Los Angeles, CA, USA) 49
Surface area and size distributions of soil particles
M. Borkovec and Q. Wu (Schlieren, Switzerland), G. Degovics and P. Laggner (Graz, Austria) and H. Sticher (Schlieren, Switzerland) 65
An experimental study of the transport and capture of colloids in porous media by a chromatographic technique
E. Rodier and J. Dodds (Nancy, France) 77
Natural organic matter and colloidal stability: models and measurements
C.L. Tiller and C.R. O'Melia (Baltimore, MD, USA) 89
The hydrolytic precipitation of iron in aqueous dispersions of mineral particles
D.W. Thompson (Bristol, UK) and C.J. Mitchell (Runcorn, UK) 103
Modelling ion binding by humic acids
E. Tipping (Ambleside, UK) 117
Thermodynamics of adsorption of dodecylpyridinium chloride on Na-kaolinite
T. Mehrian, A. de Keizer, A.J. Korteweg and J. Lyklema (Wageningen, The Netherlands) 133
Photoelectrophoresis of colloidal iron oxides. 1. Hematite (α-Fe_2O_3)
Z. Zhang, C. Boxall and G.H. Kelsall (London, UK) 145
Fouling of a microfiltration membrane by two Gram-negative bacteria
G.L. Leslie, R.P. Schneider, A.G. Fane, K.C. Marshall and C.J.D. Fell (Sydney, Australia) 165
Colloid transport in a glacial sand aquifer. Laboratory and field studies
J.J.W. Higgo, G.M. Williams and I. Harrison (Nottingham, UK), P. Warwick (Loughborough, UK), M.P. Gardiner and G. Longworth (Didcot, UK) 179
Modelling of the double layer and electrosorption of a patchwise heterogeneous surface on the basis of its homogeneous analogue. 1. Non-interacting patches
L.K. Koopal (Wageningen, The Netherlands) and S.S. Dukhin (Kiev, Ukraine) 201
Detachment of colloids from sediments and sand grains
A. Amirtharajah and P. Raveendran (Atlanta, GA, USA) 211
Speciation and partitioning of priority organic contaminants in estuarine waters
H.R. Rogers (Marlow, UK) 229
Water sensitivity of sandstones containing swelling and non-swelling clays
K.K. Mohan (Ann Arbor, MI, USA), R.N. Vaidya (Dallas, TX, USA), M.G. Reed (La Habra, CA, USA) and H.S. Fogler (Ann Arbor, MI, USA) 237

Factors controlling the stability of submicron colloids in natural waters
M. Filella and J. Buffle (Geneva, Switzerland) 255
A hybrid equilibrium model of solute transport in porous media in the presence of colloids
S. Jiang and M.Y. Corapcioglu (College Station, TX, USA) 275
Surface chemical effects on colloid stability and transport through natural porous media
R.W. Puls, C.J. Paul and D.A. Clark (Ada, OK, USA) 287

Author Index 301
Subject Index 302